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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,888	04/05/2002	Kazuhiro Nishiyama	OGOH:113	6854
7590 12/15/2003			EXAMINER	
Parkhurst & Wendel Suite 210 1421 Prince Street Alexandria, VA 22314-2805			DI GRAZIO, JEANNE A	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 12/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/089,888	Applicant(s) NISHIYAMA ET AL.	
	Examiner Jeanne A. Di Grazio	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Election of Sept. 26, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 83-86 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 85 and 86 is/are allowed.
- 6) ☒ Claim(s) 83 and 84 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>061003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Priority to Japanese Patent Application 11-285549 (Oct. 6, 1999) is claimed. Priority to other Japanese Patent Applications is also claimed.

Election/Restrictions

Applicant's election with traverse of Group II (claims 83-86) in Paper of September 26, 2003 is acknowledged. The traversal is on the ground(s) that the subject matter of all of the claims 1-13 and 41-97 (claims 36-40 having been previously cancelled by Preliminary Amendment) is sufficiently related such that there exists no serious burden on the Office.

This is not found persuasive because the limitations that are unique to Group II are not found in the other Groups such that the search required for Group II is has no bearing on the other searches required for the other Groups.

The requirement is still deemed proper and is therefore made FINAL.

Accordingly, claims 83-86 are currently examined in this Official Action.

Drawings

The drawings were received on April 29, 2002 referring to Figures 5 and 24. However, the Examiner notices that only a correction with respect to Figure 5 appears to have been sent by Applicant.

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

Claims 83-86 objected to because of the following informalities. The preambles each recite "etc." after "and an insulating film for insulating." The use of "etc." in the claim is not appropriate. Appropriate correction is required.

Claims 83-86 objected to because of the following informalities. The preambles each recite "provided in principle" before "on the inner side of the two substrates." The limitation "in principle" may be confusing because it may suggest that the orientation films exist only in theory and because the orientation films are critical to Applicant's claimed invention, they should be positively recited. Appropriate correction is required.

Claim 85 objected to because of the following: "or the lines" lacks antecedent basis because it is not properly introduced anywhere prior to its being recited after "on the electrodes." Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 83 and 84 rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al. (US 5,598,285) in view of Aomori et al. (US 5,625,474).

Per claims 83 and 84: Kondo teaches an in-plane liquid crystal display device that has the following features. With reference to Figures 1(a)-1(d), Kondo has a pair of substrates (3), pixel electrodes for generating an in-plane electric field (pixel electrode 1 and electric field 7), common electrodes (2), and an insulating film for insulating pixel and common electrodes (ABS, the pixel electrodes and common electrodes may be separated by an insulating layer), and a liquid crystal layer (5) sandwiched via orientation films (4) provided on the inner side of the two substrates.

Kondo, however, does not appear to explicitly have an orientation film removal step of removing a predetermined portion of the orientation film once formed on the inner side of the two substrates and an orientation step of performing an orientation process to the remaining orientation film.

Aomori, however, teaches a full-color liquid crystal display device and fabrication process that includes removal of part of transparent orientation films by etching to form openings on electrode pads (Figure 4, electrode pads 11b and 11c)(column 12, lines 10-15 and entire patent). Aomori furthermore teaches that an orientation may be imparted to the orientation film(s)(column 12, lines 39-42).

Specifically, referring to Figure 1, Aomori has two substrates (10 and 17) and these substrates have orientation films (15 and 18) on the respective inner surfaces of the substrates. Portions of these orientation films are removed to expose electrode pads (18c, 14c, and 11c).

Aomori is evidence that one of ordinary skill in the art of liquid crystals would have had the reason, suggestion, and motivation to etch away predetermined parts of orientation films so that electrode pads could be exposed so that the electrode pads could be connected to other electrode pads (column 12, lines 10-25, entire patent).

Therefore, it would have been obvious to one of ordinary skill in the art of liquid crystals at the time the invention was made to modify Kondo in view of Aomori to etch away portions of orientation films to expose electrode pads to facilitate interconnections with other electrode pads.

Allowable Subject Matter

Claims 85 and 86 allowed.

The current prior art of record fails to teach or to fairly suggest a step of removing (stripping) part of an orientation film by rubbing the orientation film.

Relevant art US Patent 5,894,050 (issued to Camps et al.) discloses a method of manufacturing an optical component where a substrate including an orientation layer are both removed by applying a slight pressure. Camp does not, however, teach how that slight pressure is achieved. The recitation "rubbing" means a back and forth motion that introduces friction and pressure and this, in the context of removal, is not taught by Camps.

Relevant art US Patent 5,796,458 (issued to Koike et al.) discloses the step of rubbing an alignment film with a resist through the use of a rubbing roller in one direction and then

removing the resist from the alignment film. Koike does not teach or suggest rubbing as a method of removal of an alignment film.

Conclusion

Claims 83 and 84 are rejected. Claims 85 and 86 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeanne A. Di Grazio whose telephone number is (703)305-7009. The examiner can normally be reached on M-F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached on (703) 305-3492. The fax phone number for the organization where this application or proceeding is assigned is (703)746-8741.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

Jeanne Andrea Di Grazio

Robert Kim, SPE

JDG


T. Choudhury
Primary Examiner